

# The future of work

10 facts about jobs in the future

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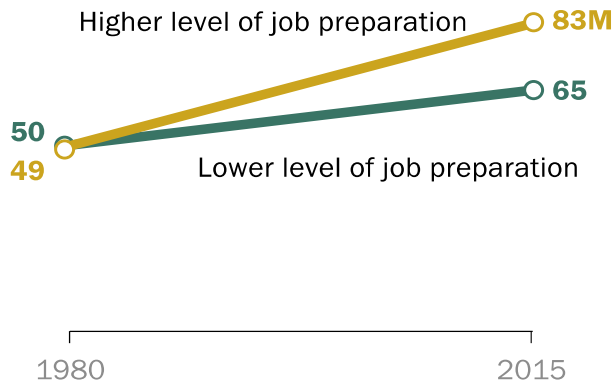
IMF- World Bank Youth Dialogue on the future of work

Oct. 10, 2017

# 1) The nature of jobs is changing as the knowledge economy rises

## Employment is rising faster in occupations requiring more preparation ...

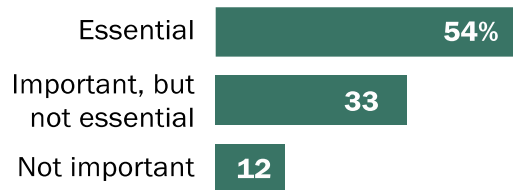
*Number employed, in millions*



1980 2015

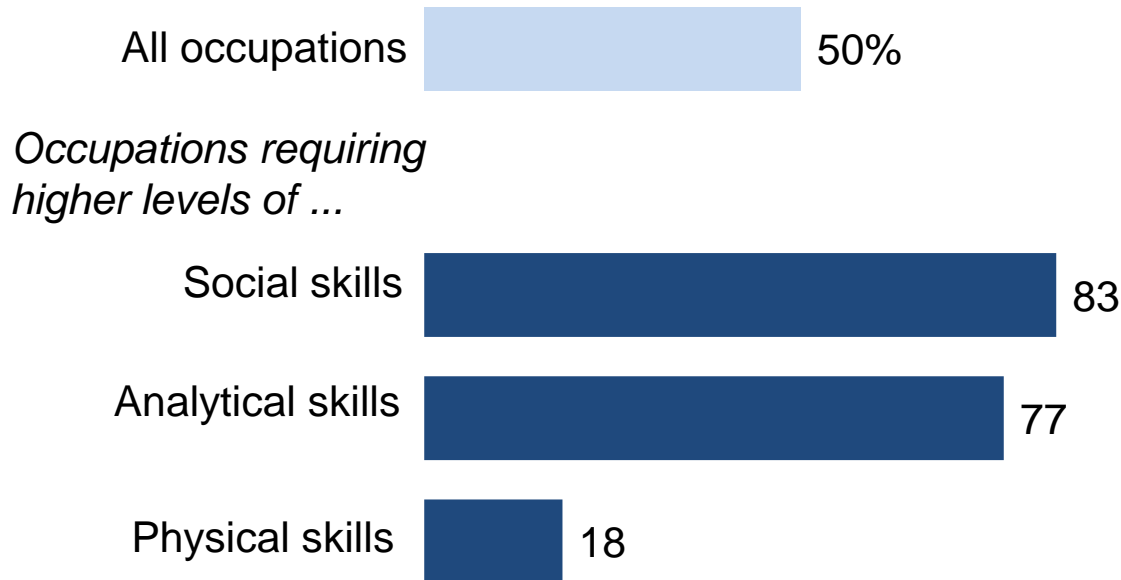
## ... and most workers see continuous training as essential or important to career success

*% saying training/skills development throughout their work life will be ...*



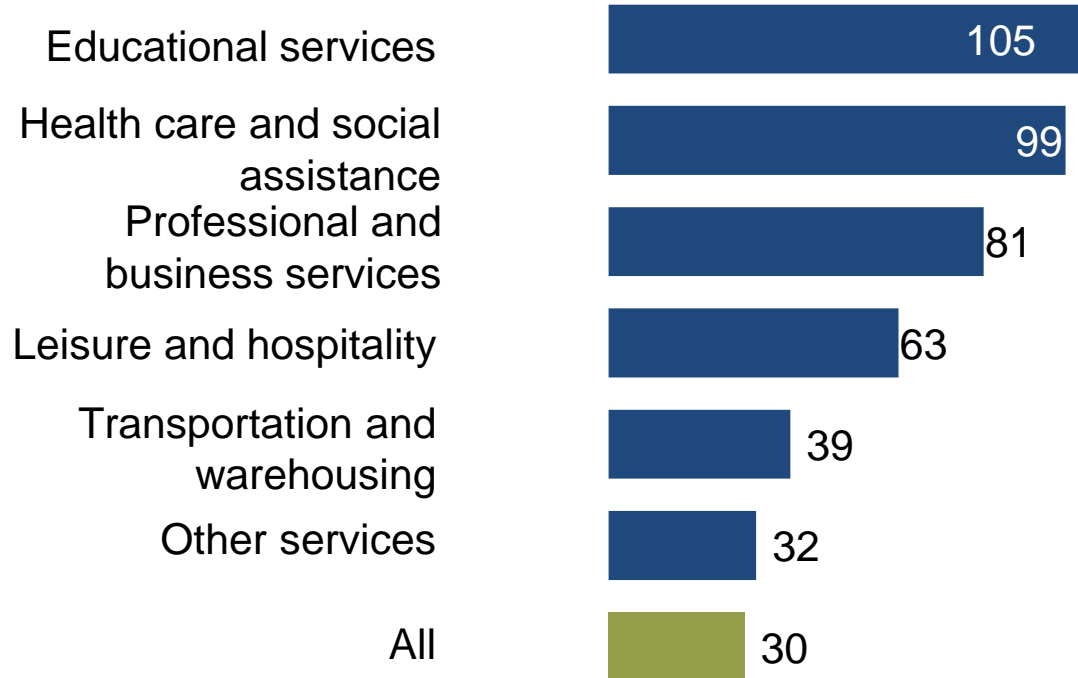
# 1) The nature of jobs is changing as the knowledge economy rises

*% change in employment, 1980-2015*

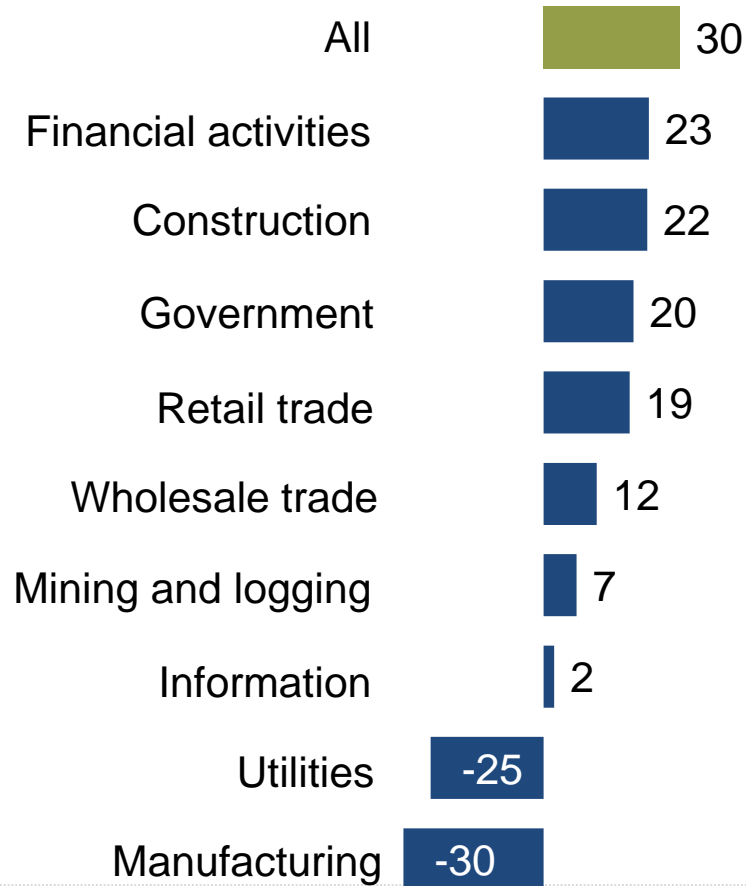


## 2) Since 1990, employment growth most rapid in education and health services

*% change in industry employment, 1990-2015*



*% change in industry employment, 1990-2015*



### 3) Automation, robots, artificial intelligence are taking over workers' traditional tasks

47%

Oxford researchers calculate this is the percentage of American employment that is at risk because of the expected impacts of computerization in the foreseeable future

[http://www.oxfordmartin.ox.ac.uk/downloads/academic/The\\_Future\\_of\\_Employment.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf)

50%

McKinsey analysts estimate this is the share of activities workers are paid to do now that could be automated using currently available technologies – accounting for \$15 trillion in wages

<https://www.mckinsey.com/global-themes/digital-disruption/harnessing-automation-for-a-future-that-works>

3) Automation, robots, artificial intelligence are taking over workers' traditional tasks

# 45 years

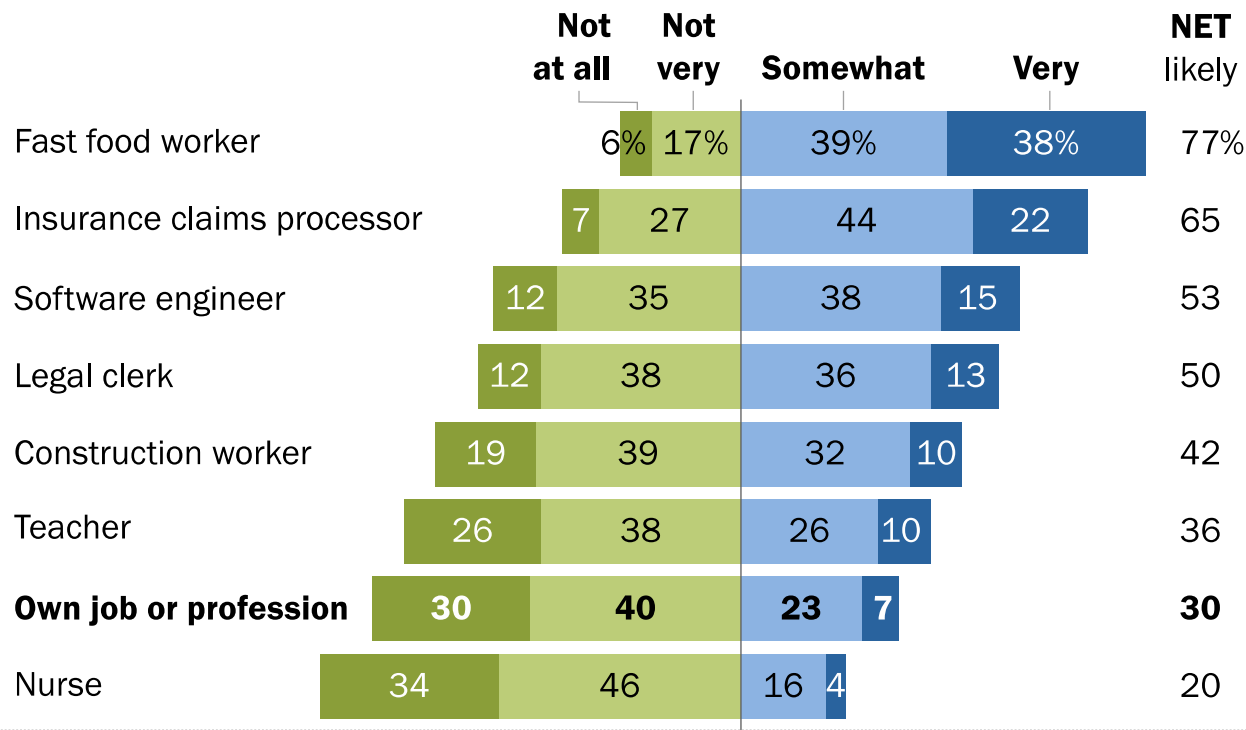
The timeframe estimated by artificial intelligence experts when “high level machine intelligence” – unaided machines that can accomplish any given task better and more cheaply than humans – will be developed

- 2024: outperform language translators
  - 2027: drive a truck
  - 2031 : work in retail
- 2049: write best selling book
- 2053: work as a surgeon

<https://arxiv.org/pdf/1705.08807.pdf>

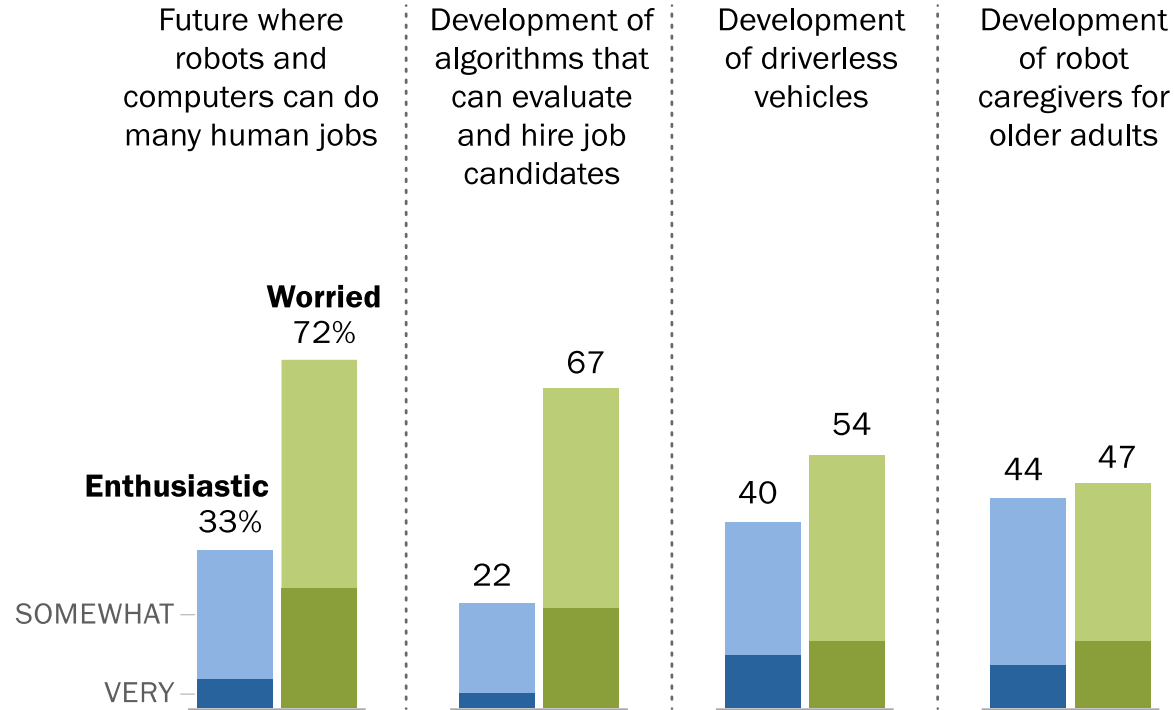
## 4) People think many professions at risk – but not their own jobs

% of U.S. adults who think it is \_\_\_\_ likely that the following jobs will be replaced by robots or computers in their lifetimes





## 5) People express more worry than optimism about future automation



## 6) Workers express more positive than negative views on overall impact of technology on their careers

*% of U.S. workers who say the following*

### Technology has \_\_ for career advancement

Decreased their  
opportunities

13%

Increased their  
opportunities

46%

Had no impact either way

40%

### Technology has generally made their work ...

Less interesting

12

More interesting

53

Had no impact either way

34

### Technology has generally made their work ...

Less demanding

29

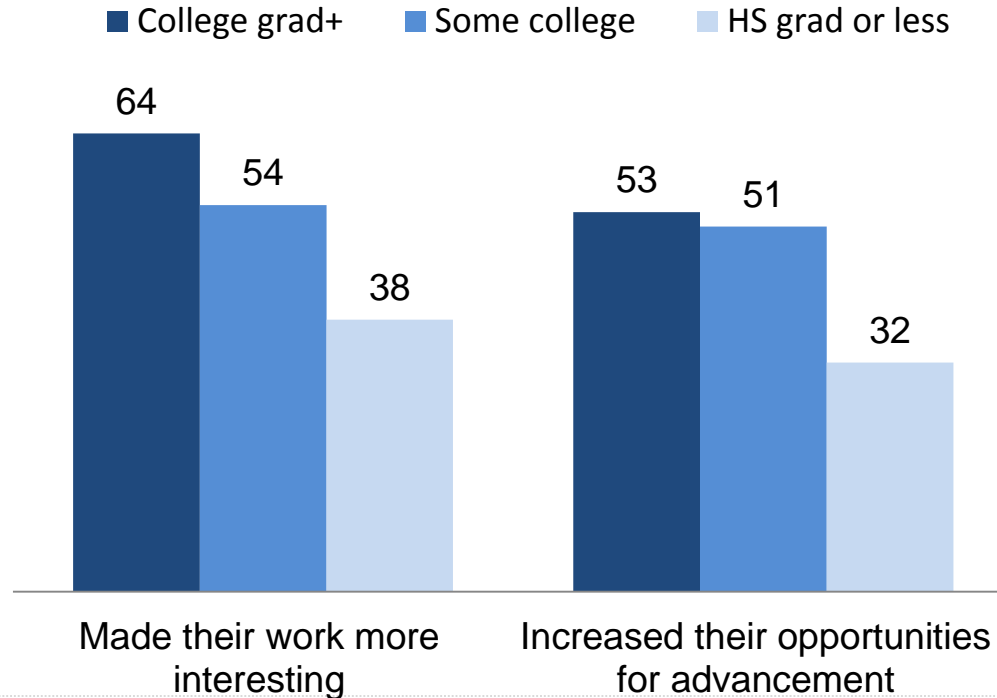
More demanding

39

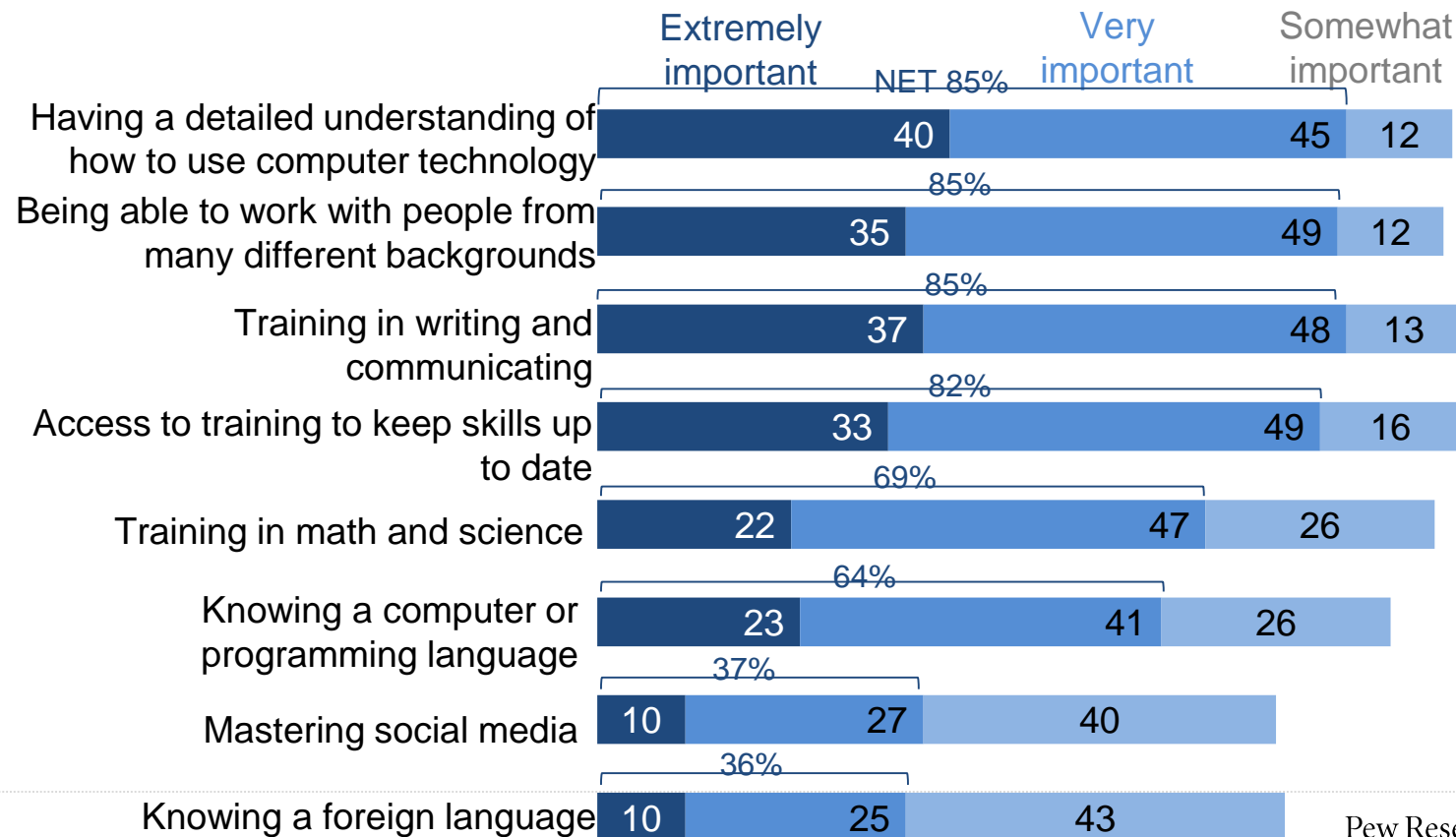
Had no impact either way

32

## 7) Workers with higher levels of education more likely to say tech has increased opportunities, made jobs more interesting



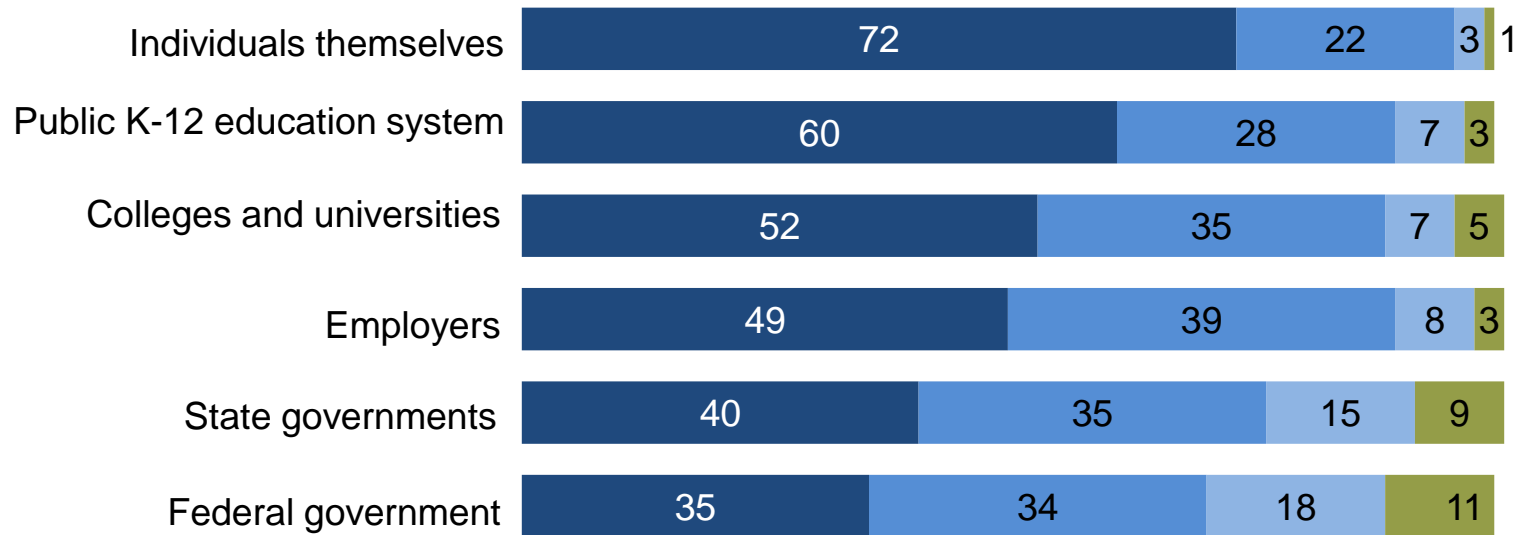
## 8) People think knowledge of computers, social dexterity, communications skills and access to training are key to success



## 9) Americans think individuals and public schools should have the most responsibility to make sure workers have the right skills

*% saying these groups should have \_\_\_\_ responsibility in making sure that the American workforce has the right skills and education to be successful in today's economy*

■ A lot of   ■ Some   ■ Only a little   ■ None



## 10) Experts see major changes in education and jobs training programs

*In the next 10 years, do you think we will see the emergence of new educational and training programs that can successfully train large numbers of workers in the skills they will need to perform the jobs of the future?*

70% “yes”

30% “no”

Theme 1) The training ecosystem will evolve, with a mix of innovation in all education formats

Theme 2) Learners must cultivate 21st-century skills, capabilities and attributes: Tough-to-teach intangibles such as emotional intelligence, curiosity, creativity, adaptability, resilience and critical thinking will be most highly valued

Theme 3) New credentialing systems will arise as self-directed learning expands

<http://www.pewinternet.org/2017/05/03/the-future-of-jobs-and-jobs-training/>

Thank you!

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